

WHAT IS CLAIMED IS:

1. An image display device comprising:

an image display portion in which a plurality of pixels are arranged in a matrix;

5 a plurality of signal lines wired in said image display portion to carry a voltage signal to said pixels; and

a drive circuit to control voltage on each said signal line,

10 wherein each said pixel comprises a light emitting element and a pixel circuit which controls the intensity of light emission of said light emitting element,

the image display device is equipped with a pixel circuit voltage detecting means to selectively output a voltage internal to said pixel circuit included in each said pixel to said signal line to which the pixel circuit connects, and

20 said drive circuit is equipped with a voltage addition means to add the voltage on said signal line and a signal voltage corresponding to image data to be displayed and output a sum voltage to said signal line again.

2. The image display device according to claim 1, wherein:

5 said pixel circuit voltage detecting means comprises circuitry which can place said pixel circuit included in each said pixel in three states: a disconnection state from said signal line, a connection state to said signal line,

and a resistive connection state wherein said pixel circuit connects to said signal line with a sufficiently higher value of resistance than in said connection state.

3. The image display device according to claim 1, wherein:  
said pixel circuit voltage detecting means comprises a resistor and switching transistors connected in parallel to the resistor.

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4. The image display device according to claim 1, wherein:  
said pixel circuit is equipped with a current holding circuit to supply a constant current to said light emitting element.

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5. The image display device according to claim 1, wherein:  
said drive circuit comprises a sampling circuit to hold the voltage on said signal line and an adder circuit to add the voltage thus held and an image signal voltage.

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6. The image display device according to claim 1, wherein:  
said drive circuit comprises a driver IC to output an analog voltage and a capacitor connected between said driver IC and said signal line.

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7. The image display device according to claim 1, wherein:  
said light emitting element is a light-emitting diode element.

8. The image display device according to claim 1, wherein:  
said pixel circuit and said pixel circuit voltage  
detecting means are configured with thin-film transistors.

9. The image display device according to claim 8, wherein:  
said pixel circuit is configured with either  
n-channel or p-channel thin-film transistors.

10. An image display device comprising:

an image display portion in which a plurality of  
pixels are arranged in a matrix;

5 a plurality of signal lines wired in said image  
display portion to carry a voltage signal to said pixels;  
and

a drive circuit to control an analog voltage on each  
said signal line,

10 wherein each said pixel comprises a light emitting  
element and a pixel circuit which controls the intensity  
of light emission of said light emitting element, and

15 the image display device further includes a plurality  
of resistive wiring lines having a higher value of  
resistance than said signal lines and wired in parallel with  
said signal lines, a plurality of first switching means to  
control connection between each said signal line and each  
said resistive wiring line, and a plurality of second  
switching means to control connection between each said  
resistive wiring line and each said pixel circuit.

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11. The image display device according to claim 10,  
wherein:

5       said drive circuit is equipped with a voltage  
addition means to add the voltage on said signal line and  
a signal voltage corresponding to image data to be displayed  
and output a sum voltage to said signal line again.

12. The image display device according to claim 10,  
wherein:

5       the image display device is equipped with a control  
circuit which controls said first and second switching  
means to change a value of resistance between said signal  
line and said pixel circuit in at least two levels.

13. The image display device according to claim 10,  
wherein:

5       said signal line and said resistive wiring line are  
formed so as to be overlapped in a region and isolated by  
an insulation layer which is formed therebetween.

14. The image display device according to claim 10,  
wherein:

5       said resistive wiring line is made of a  
polycrystalline silicon thin film.

15. The image display device according to claim 10,  
wherein:

      said light emitting element is a light-emitting diode

element.

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16. The image display device according to claim 10,  
wherein:

said pixel circuit and said first and second  
switching means are configured with thin-film transistors.

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17. The image display device according to claim 16,  
wherein:

said pixel circuit is configured with either  
n-channel or p-channel thin-film transistors.